

**ALTERNATOR SYSTEM WITH TEMPERATURE  
PROTECTED VOLTAGE REGULATOR**

**Abstract of the Disclosure**

An alternator system includes a permanent magnet alternator, battery and voltage regulator operatively connected to the permanent magnet alternator and battery for regulating the charging of the battery. The voltage regulator includes a rectifying circuit for rectifying the alternating current and a semiconductor switching element operative for turning the regulator on and off based on a predetermined temperature threshold to prevent overheating of any voltage regulator electronic components.